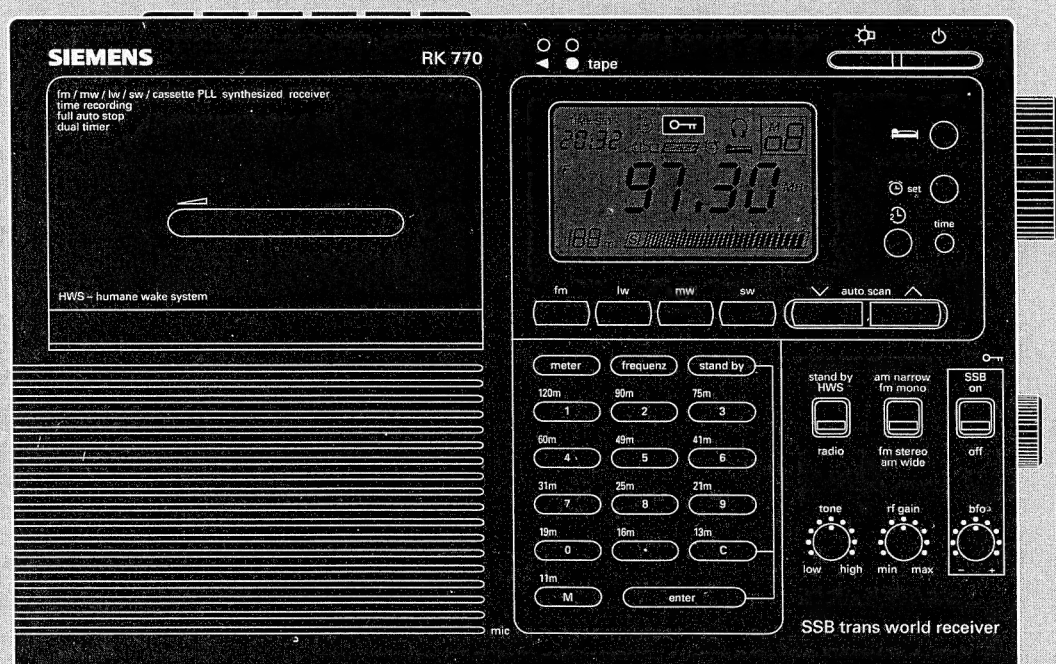


SIEMENS

RK 770

Weltempfänger/
Cassette
World Band Receiver

Operating instructions **GB**





Bitte achten Sie darauf, daß Sie dieses Gerät nicht auf ungeschützte Schleiflackmöbel stellen. In seltenen Fällen können dadurch schwarze Abdrücke entstehen, die sich nicht wieder entfernen lassen.

Do not place this set directly onto furniture with an eggshell finish. In rare cases, it can leave permanent, unremovable black marks on finishes of this kind.

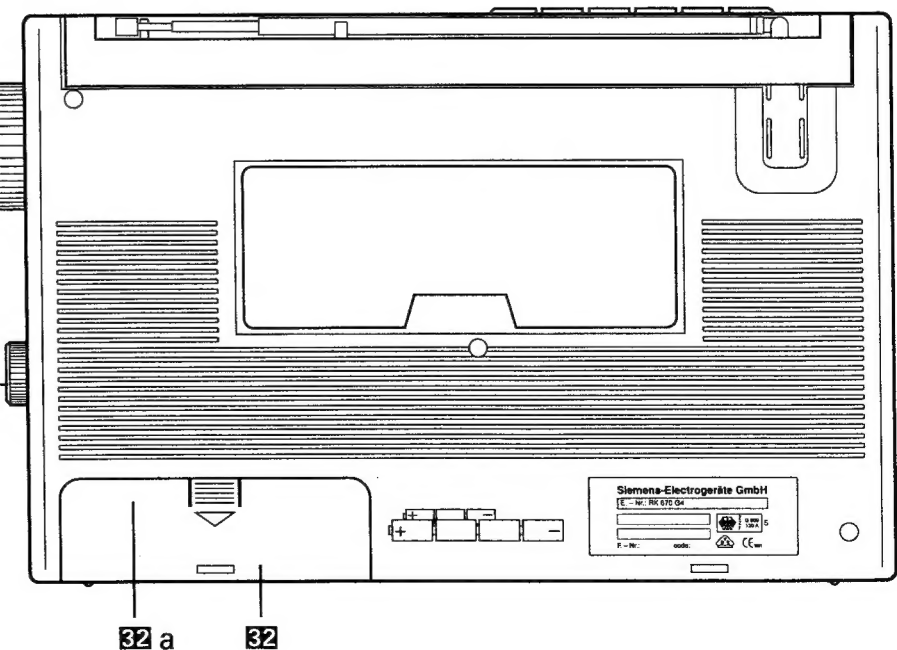
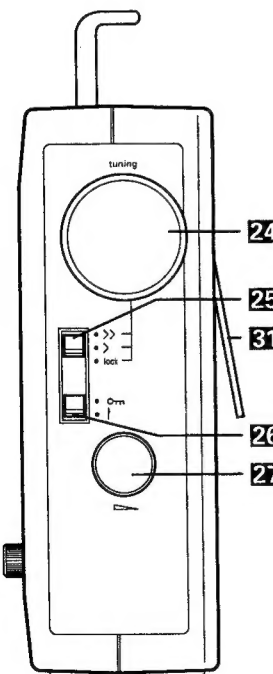
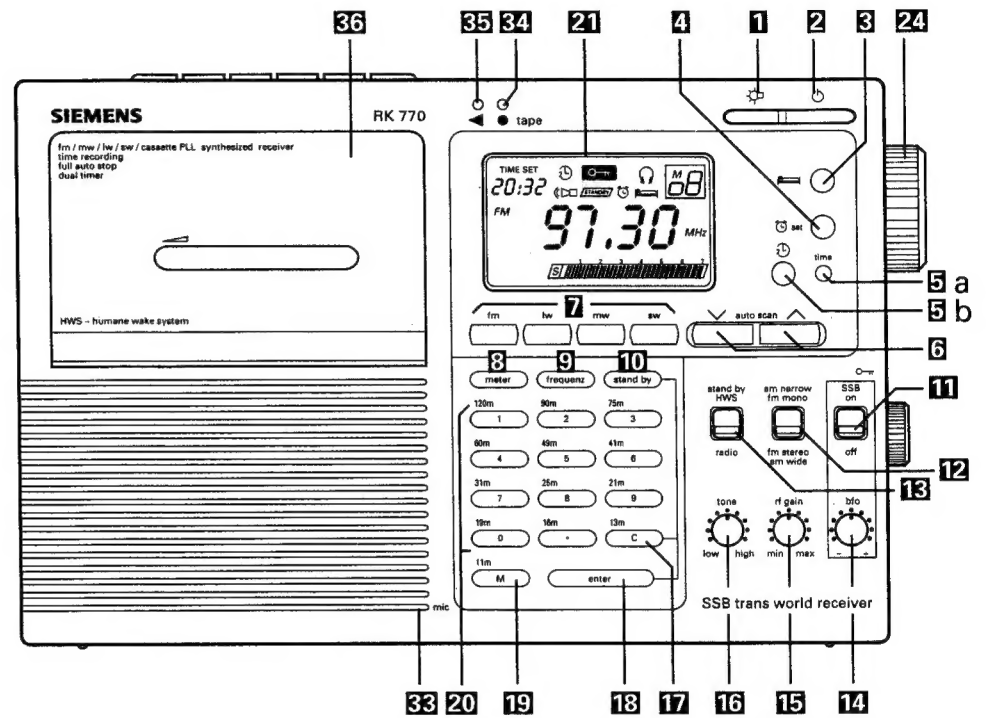
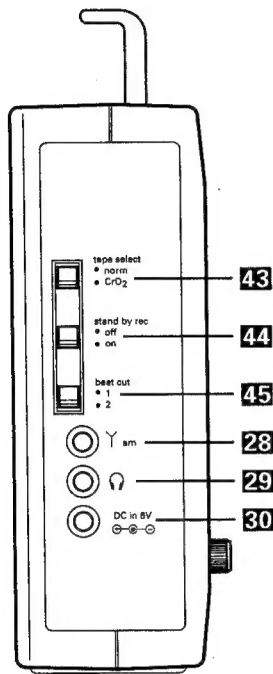
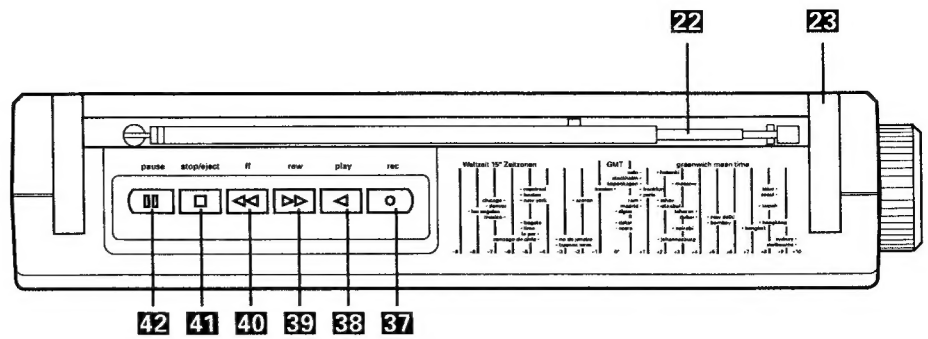
Veillez à ne pas poser l'appareil sur des meubles au vernis poncé sans protection. Dans de très rares cas, il peut en effet en résulter des marques noires indélébiles.

Let er a.u.b. op dat u deze het toestel niet zonder bescherming op slijplak-meubelen zet. In een heel enkel geval kan het gebeuren dat daardoor zwarte afdrukken ontstaat die zich niet meer laten verwijderen.

Fate attenzione a non collocare questa l'apparecchio su mobili laccati a pulimento e non protetti. In casi rari potrebbero risultare delle impronte nere, che non si lasciano più togliere.







Se recomienda no colocar este el aparato sobre muebles barnizados y pulidos. Ya que en raras ocasiones éstos pueden dejar manchas negras que no se pueden quitar.

Änderungen vorbehalten. Subject to modification. Sous réserve de modifications. Wijzigingen voorbehouden.
Con riserva di modifiche. Sujeto a modificaciones.






Operating elements and their functions

Radio section

1			Display illumination
2			On/Off switch
3			Sleep time
4		set	Time setting
5 a		time	Switch-over normal time / DUAL time
5 b			DUAL time display (2nd time zone)
6		auto scan	Automatic tuning
7		fm / mw / lw / sw	Waveband selection buttons
8		meter	Preselection short-wave bands
9		frequenz	Direct frequency input
10		stand by	Stand-by
11		SSB on / off	SSB oscillator On/Off
12		fm mono / fm stereo am narrow / am wide	FM mono/stereo switch and AM local/distant switch
13		stand by HWS / radio	HWS/radio alarm function
14		bfo ±	BFO pitch
15		rf gain min / max	AM sensitivity
16		tone low / high	Tone control bass/treble
17		C	Input correction
18		enter	Command input
19		M	Memory
20	0 – 9	13m – 120m	Digital input and short-wave selector
21			LCD display
22			Telescopic aerial
23			Handle
24		tuning	Tuning knob

Operating elements and their functions

25 » / › / lock	Tuning speed
26 	Disabling switch
27 	Volume control
28 Y am	External aerial socket
29 	Earphone socket 3.5 mm dia.
30 DC in 6 V	6 Volt socket for external power supply
31	Support
32	Battery compartment
32 a	Switch 9 kHz / 10 kHz

GB

Cassette section

33 mic	Internal microphone
34 ● tape	LED display cassette recording
35 ◀	LED display cassette playback
36	Cassette compartment
37 ● rec	Recording
38 ◀ play	Playback
39 ▶▶ rew	Fast rewind
40 ◀◀ ff	Fast forward
41 ■ / ▲ stop / eject	Stop/cassette eject
42 pause	Pause
43 norm / CrO ₂	Tape type switch normal/CrO ₂
44 stand by rec on / off	Cassette recording timer
45 beat cut 1 / 2	AM beat suppression

Technical features

Radio section

Continuous AM waveband tuning without interruption of LW, MW and SW bands, provides extensive reception range.

Rapid display in 3-colour LCD display. Easily legible display of station frequencies, waveband, times (normal and dual), memory indications, signal strength, battery charge level and various function symbols.

Direct input of reception frequencies ensures immediate station play on FM waveband 87.5 MHz - 108 MHz and on the AM wavebands 150 kHz - 29999 kHz.

Preselection of 45 stations on LW, MW and FM waveband. Direct call-up of memory display.

Additional tuning aids ensure optimum selectivity and clear reproduction of selected stations.

Dual time system enables input of local normal time and a second UTC* standard time zone (international time).

Automatic station search for programme search and selection.

Button "C" ensures rapid correction of errors in memory inputs.

SW waveband selection for direct selection of 13 SW bands (11m - 120m).

BFO function enables reception of SSB and telegraph stations.

Optional fast or slow tuning speed.

60 minute automatic sleeptime facility allows you to fall asleep listening to music or other radio programmes.

Illuminated display for night-time checking.

Earphones can be connected for stereo sound.

Universal mains connection via power supply unit to all AC mains types and external power supply socket for external battery operation.

Support ensures correct positioning and stability of unit.

Cassette section

Automatic stop function in playback mode and during fast forward and rewind (full auto stop).

Cassette recording using timer enables precisely timed automatic recording.

Internal microphone for direct recording of speech or music.

*UTC = universal time coordinated.

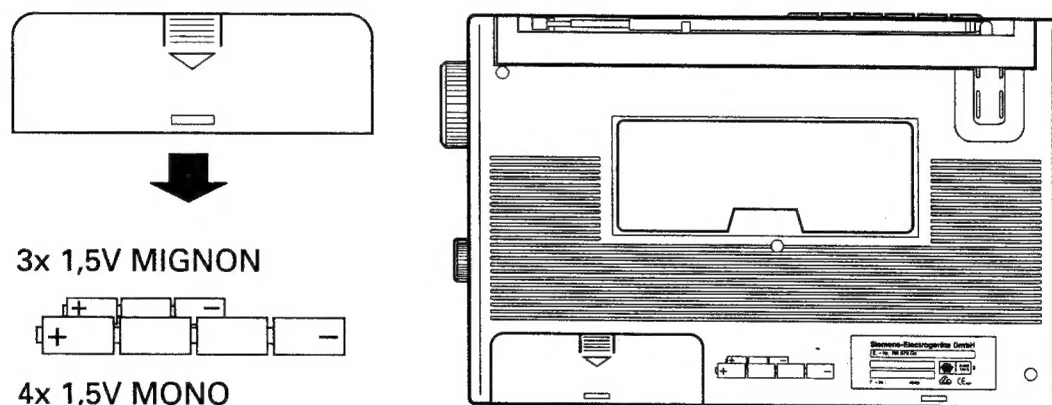
Power supply

The unit is designed for use with:

- 4 monocell batteries 1.5 Volt
- 6V power supply unit connected to AC mains.
Connection to external 6V socket

GB

To load the battery compartment **32** first insert 3 miniature batteries 1.5 V (LR6/AA/AM3) as back-up batteries and then 4 monocell batteries 1.5 V (LR20/D/AM1).



Please ensure correct polarity of batteries and position of output loop.

Empty batteries may leak and should immediately be removed from the unit.

Note:

When the unit is switched off the charge level of the batteries is indicated for around 5 seconds.
If the display drops to 2 scale lines this means that the 4 main batteries are exhausted.

Changing the batteries

If the 4 main batteries are exhausted, the unit will automatically switch the microprocessor power supply to the back-up batteries. If the display begins to fade, the back-up batteries will also need replacing (3x1.5V miniature batteries).

In order to avoid losing any memory inputs, switch the switch **26**  to the key symbol and change the batteries within 2 minutes.

Connection with a power pack

An all-purpose power pack is included with the unit. It can be connected to a 110 volt to 230 volt A.C. power supply. The switching and adaptation to the individual power supply takes place automatically (negative terminal inside).

The power pack is connected to the socket **30** D.C. in 6 V.

The batteries in the unit are automatically switched off.

Programming the memory

Setting the time

The time display is based on the international UTC standard (24-hour clock). Once 3 miniature batteries 1.5 V (LR6/AA/AM3) have been inserted in the battery compartment the clock is ready for use.

Display shows 0:00

Press button **4**  set.

The display 0:00 disappears and TIME SET flashes for approx. 12 seconds. While TIME SET is blinking, enter the current time using the digit buttons.

An incorrect input can be cancelled using button **17** C input correction.

Each press of the button cancels one digit and the correction or a new time can then be input.

To complete time input press button **13** enter. The hours and minutes will be shown in the display.


Note:

The time can only be set while the display TIME SET is flashing.

Setting a second time zone (DUAL TIME)

If required, a second time zone can be programmed in, e.g. Summer/Winter time, other time zones of SW stations or the time at home if you are traveling.

Press button **5** a time. The second time setting appears in the display.

Press button **4**  set. The second time display disappears and TIME SET flashes for approx. 12 seconds.

While TIME SET is blinking, enter the second time setting using the digit buttons.

An incorrect input can be cancelled using button **17** C input correction. Each press of the button cancels one digit and the correction can then be input.

To complete second time setting input press button **18** enter.

The hours and minutes will be shown in the display.

y pressing the button **5** a time once again, the LCD Display wil show the local time at first.

By pressing and holding the button **5** b time, the LCD Display will show either the second time zone or the local time, just like you choose with the button **5** a time before.

Waveband selection

The waveband is selected using the waveband buttons **7** fm/lw/mw/sw:

Waveband	Frequency range	Wavelength
FM	87.5 - 108 MHz	VHF/FM
LW	150 - 519 kHz	Long wave
MW	520 - 1710 kHz	Medium wave
SW	1711 - 29999 MHz	Short wave / 13 waveband ranges (See Technical Data for further information)

GB

Continuous tuning on AM bands from 150 kHz to 29999 MHz.

When the unit is switched on the display shows the last waveband selected and the frequency.

When one of the 4 band buttons is pressed, the display shows the band selected and the current frequency.

Note:

When the band button **7** SW (short-wave) is pressed followed by button **8** meter the required short-wave band is selected.

13 bands (11m to 120m) are available.

The band data are shown above the function and digit buttons.

External antenna

With the enclosed short wave antenna the performance and the quality of reception of your world radio receiver can be improved with effortless ease. The short wave antenna is ideal when you are travelling, on holiday and for camping. An antenna length of 7 metres can be unwound from the cable box. If possible the entire length should be unwound and used.

The antenna is equipped with a 3,5 mm Ø jack plug and is connected to the antenna jack **28** of the unit.

Attach the cable box with the loop and the clip to a suitable holder. Choose a place from which the antenna can hang freely and is not in anybody's way. The higher you attach the antenna and the longer the length of antenna wire that can be pulled out, the better the reception quality.

The antenna must never be attached to sockets, power cables or near to bare power cables.

Tuning

There are four different methods for selecting stations and tuning:

Direct tuning	= Direct tuning by inputting the frequency
Manual tuning	
Scan tuning	= Station search
Memory tuning	= 45 preset stations

Direct tuning

If you know the frequency of the required station, this can be input direct using the digit buttons.

Example:

101.20 MHz FM

Switch on unit, press button **7** fm

Press button **9** frequency


Enter the required station frequency (Example 101,20 MHz) using the digit buttons. The decimal point must also be entered using the button **•** point, as otherwise the incorrect frequency (10120 MHz) will be entered.

Press button **18** enter within 12 seconds. This will tune the radio to the required reception frequency.



The required station is received and shown in the display together with the reception signal strength.

Turn the telescopic aerial **22** to find the optimum reception.

Set controls **27** volume and **16** tone as required.

FM stereo reproduction is possible by connecting headphones or earphones to socket **29** . Switch **12** must be set to fm stereo.

Manual tuning

A station where the frequency is not known can be selected using either the buttons **6**   auto scan or the tuning knob **24** tuning.

Switch on unit and select waveband.

Press buttons **6** \vee \wedge auto scan and repeat until required station is received. Manual tuning can thus be achieved by short repeated pressing of the buttons

or

Turn the tuning knob **24** tuning until the correct frequency is displayed or the required station is received.

The tuning display "S" at the bottom edge of the LCD display **21** serves as a tuning aid. The display bars will be at maximum once the optimum tuning position is reached.

Tuning speed

When button **6** \vee \wedge auto scan is pressed, scanning proceeds in the following steps:

FM: 50 kHz
LW: 9 kHz
MW: 9 kHz or 10 kHz*
SW: 5 kHz

GB

When using the knob **24** tuning the tuning speeds (step spacing) vary according to the setting of switch **25** \gg /lock.

\gg = fast
 \gg = fine/slow
lock = not operative

Setting \gg (fast)

Setting \gg (fine/slow)

FM: 100 kHz
LW: 9 kHz
MW: 9 kHz/10kHz*
SW: 5 kHz

FM: 50 kHz
LW: 1 kHz
MW: 1 kHz
SW: 1 kHz

If the switch **25** is set to lock, manual tuning is disabled to prevent accidental turning of the tuning knob.

* Europe 9kHz; USA 10 kHz

Switch **32** a is located in the battery compartment

Scan tuning

It is recommended that scan tuning (auto scan) be used for rapid station location or for selecting various stations within a waveband.

Switch on the unit and select the waveband. Press one of the buttons **6** \vee \wedge auto scan and hold down for at least half a second. Scanning will stop automatically when a strong station signal is found. The station signal strength is shown by the signal strength indicator in the LCD display **21**.

To restart the scanning again press one of the auto scan buttons and hold down for at least half a second. Scanning can be stopped at any time by briefly pressing the opposite auto scan button. When the upper or lower limit of a waveband range is reached, the unit will again start to scan the waveband so long as one of the auto scan buttons **6** \vee/\wedge is pressed.

Memory tuning

Up to 18 different stations can be stored on the short-wave bands and up to 9 different stations on each of the other bands, providing a total of 45 preset stations.

Waveband	FM	LW	MW	SW
Preset stations per band	9	9	9	18
Total preset stations	= 45			

Switch on the unit.

The required station can be tuned in using any of the tuning methods described above. Press button **19** marked M for MEMORY.

The display indication "M" flashes for approx. 15 seconds.

During this time press one of the digit buttons 1-9 on the digital keypad **20**.

The selected station will then be programmed into this memory location.

The preset stations buttons can be used in any order - you do not need to start with button 1. On the short-wave band (SW) a total of 18 preset stations can be programmed using first the digital input 1-9 and then the digital inputs 01-09.

Memory contents display

First select the waveband **7** on which you wish to call display a particular station. In order to call up the required station in the display, simply press the digit button **20** under which it is stored.

The preset stations will be shown in the display as M1 - M9 or M01 - M09 together with the station frequency.

On SW the band is also shown with meter indication.

Alarm function

Once the alarm time has been set, the alarm method can be set as either HWS* alarm tone or radio.

* HWS = Humane Wake System

Setting the alarm time

Press button **10** stand by.

The display shows 0:00.

The STAND BY display flashes for approx. 15 seconds. Enter the required alarm time as a 24-hour clock setting using the digit buttons.

Incorrect inputs may be cancelled using the correction button **17** C and then re-set. Each press of the button cancels one input digit.

Once the alarm time has been set press button **18** enter.

The STAND BY display stops flashing and the alarm time is stored.

The display again shows the normal time.

The stored alarm time will activate every day and must be reset if a change is required.

In order to check the alarm time press button **10** stand by. Pressing the button again returns the display to normal time - the normal time display reappears automatically after approx. 15 seconds.

In order to select HWS or radio alarm mode, set the switch **16** stand by to the required position; the display will show both the indication STAND BY and a clock or loudspeaker symbol.

In order to switch off the alarm tone, briefly press the On/Off switch **2** .



Cancel the alarm function

GB

In order to cancel the alarm function e.g. at the weekend or for other reasons, press button **10** stand by followed by button **17** C. The STAND BY indication in the display will disappear and the alarm will not sound.

However, the preset alarm time will be retained and can be re-activated at any time by pressing button **10** stand by followed by button **18**.

Setting sleep time

Pressing button **3**  ensures that the radio switches off automatically after 60 minutes, allowing you to fall asleep while listening to the radio. To switch off earlier, press button **2**  On/Off switch to turn off the unit.

Special settings and adaptation to reception conditions

The unit offers the following facilities to ensure optimum reproduction even under difficult reception conditions:

SSB/CW* reception

Many short-wave stations transmit unmodulated telegraphic signals which have an extremely long range, but which will only be received as confused noise or a silent signal without special equipment.

The BFO** **14** allows you to receive such stations.

Certain stations transmit by the SSB method. Above 10 MHz the Upper Side Band is generally transmitted, below 10 MHz the Lower Side Band. In order to allow you to receive such stations the unit is equipped with an SSB facility **11**.

Reception of CW signals

Switch on the unit. Fully extend the telescopic aerial or use an external aerial. Set SSB switch **11** to on.

Set bfo control **14** to centre, rf gain control **15** to max.

Tune in CW station on short-wave band. Adjust the pitch of the telegraphic signal reception as required using the BFO control **14**.

Adjust rf gain and AM band width according to reception conditions (see description below).

Reception of SSB telegraph transmissions

Switch on the unit. Fully extend the telescopic aerial or use an external aerial. Set SSB switch **11** to on.

Set bfo control **14** to centre, rf gain control **15** to max.

Tune in SSB station on short-wave band. Use the bfo control **14** to achieve optimum clarity and reproduction quality.

Adjust rf gain and AM band width according to reception conditions (see description below).

* SSB = single side band

CW = continuous wave

** BFO = beat frequency oscillator

rf gain

The rf gain control **15** can be used to adjust the sensitivity of the unit to match the prevailing reception conditions.

If there is interference on reception of a station with a strong signal (e.g. distortion), improved reception will be achieved by moving the control towards min. For stations with a normal or weak signal the control should be moved towards max. to increase the sensitivity.

AM band width (am narrow/wide)

In order to suppress interference from adjacent stations, set switch **12** to am narrow.

Under normal conditions the switch should be set to am wide.

narrow = enhanced selectivity

wide = better treble reproduction

MW step spacing

The switch MW step **32** a 9k/10k can be used to set the step spacing on the medium wave to 9kHz or 10kHz. The switch is located inside the battery compartment and must be switched over using a small screwdriver.

Frequency spacing:


Europe 9kHz / USA 10kHz

Use of disabling switch (key symbol)

Switch **23** can be used to disable the unit to prevent unintentional operations or accidental moving of controls or switching on/off. The disabling facility is activated by setting the switch to the key symbol. This renders the On/Off switch and all tuning facilities inoperable.


It is not possible to switch the unit off before the disabling facility is released. When the unit is switched off the use of this facility will prevent accidental switching on of the unit, e.g. when carrying it in a suitcase or bag.

Display illumination


Switch **1**  can be used to illuminate the display in order to check the time or other indications during darkness. The illumination automatically switches off after approx. 15 seconds.

Headphone connection socket

GB

The unit is designed for reception of FM stereo transmissions which can be enjoyed in stereo with excellent sound quality using headphones. Connect the headphones to the socket **29**  with a 3.5 mm dia. jack plug. The inbuilt loudspeaker is automatically switched off. Set the switch **12** fm mono/stereo to the stereo position.


Cassette section

The radio and cassette sections operate independently, so for cassette playback it is not necessary to switch the unit on using switch **2**  On/Off. Only if you wish to record radio transmissions on the cassette player will you need to switch the radio on.

Tape select

Standard cassettes C30/C60/C90 can be inserted in the cassette compartment for playback or recording. Use switch **43** tape select to change over to normal or CrO₂ tape.

Playback

Insert the cassette in the cassette compartment **35** with the open tape side facing upward. Press button **38**  play to start playback. Reproduction is normally MONO, although stereo reproduction can be enjoyed using headphones. When the cassette reaches the end the player is automatically stopped by the "full auto stop" facility.

Stop/cassette eject

Press button **41** ■ / ▲ stop/eject to stop the tape. Press the button again to open the cassette compartment to remove the cassette.

Pause

Button **42** II can be used to briefly interrupt playback of a cassette, but is also useful for precise starting when recording.

Fast forward and rewind

Button **39** ►► rew is used for fast rewinding and button **40** ◀◀ for fast forward running of the tape. The fast forward/rewind of the tape can be stopped at any time once the required section of the tape is reached. When the end of the tape is reached the player is stopped automatically by the "full auto stop" facility.

Recording

Cassette recordings can be made from the radio section on all wavebands. To start recording press button **37** ● rec. This automatically activates the button play. FM stereo transmissions can be recorded in stereo. Adjustments to the volume and tone controls will not affect the recording. Optimum recording levels are ensured by the ALC* facility.

*ALC = automatic level control

Recording with microphone

Recordings of speech or music can be made using the internal microphone **33** mic.

In this case the radio is not switched on - the recording facility only is started by pressing switch **37** ● rec.

Timer recording

This facility allows precisely timed automatic recording of radio programmes. Follow the "stand by" time input procedure (see section "Setting the alarm time" to set the required start time for the recording and to tune in the required station. Set switch **44** to stand by rec to On and press button **37** ● rec on the recorder.

The recording will automatically commence at the preset time.

Beat cut

Heterodyne interference may result in whistling noises on cassette recordings of stations in the am bands sw/mw/lw. In order to suppress such interference, set switch **45** beat cut to position 1 or 2.

Technical data

Radio section

Type / Sale designation	RK 770
Wavebands	FM (MHz) 87.5 - 108
	AM (kHz) 150 - 29999 Continuous tuning from 150 kHz to 29999 kHz on AM bands
	SW (MHz) divided up into 13 SW bands

SW1	120m-Band	2,30	-	2,495
SW2	90m-Band	3,20	-	3,40
SW3	75m-Band	3,90	-	4,00
SW4	60m-Band	4,75	-	5,06
SW5	49m-Band	5,95	-	6,20
SW6	41m-Band	7,10	-	7,30
SW7	31m-Band	9,50	-	9,90
SW8	25m-Band	11,65	-	12,05
SW9	21m-Band	13,60	-	13,80
SW10	19m-Band	15,10	-	15,60
SW11	16m-Band	17,55	-	17,90
SW12	13m-Band	21,45	-	21,85
SW13	11m-Band	25,67	-	26,10

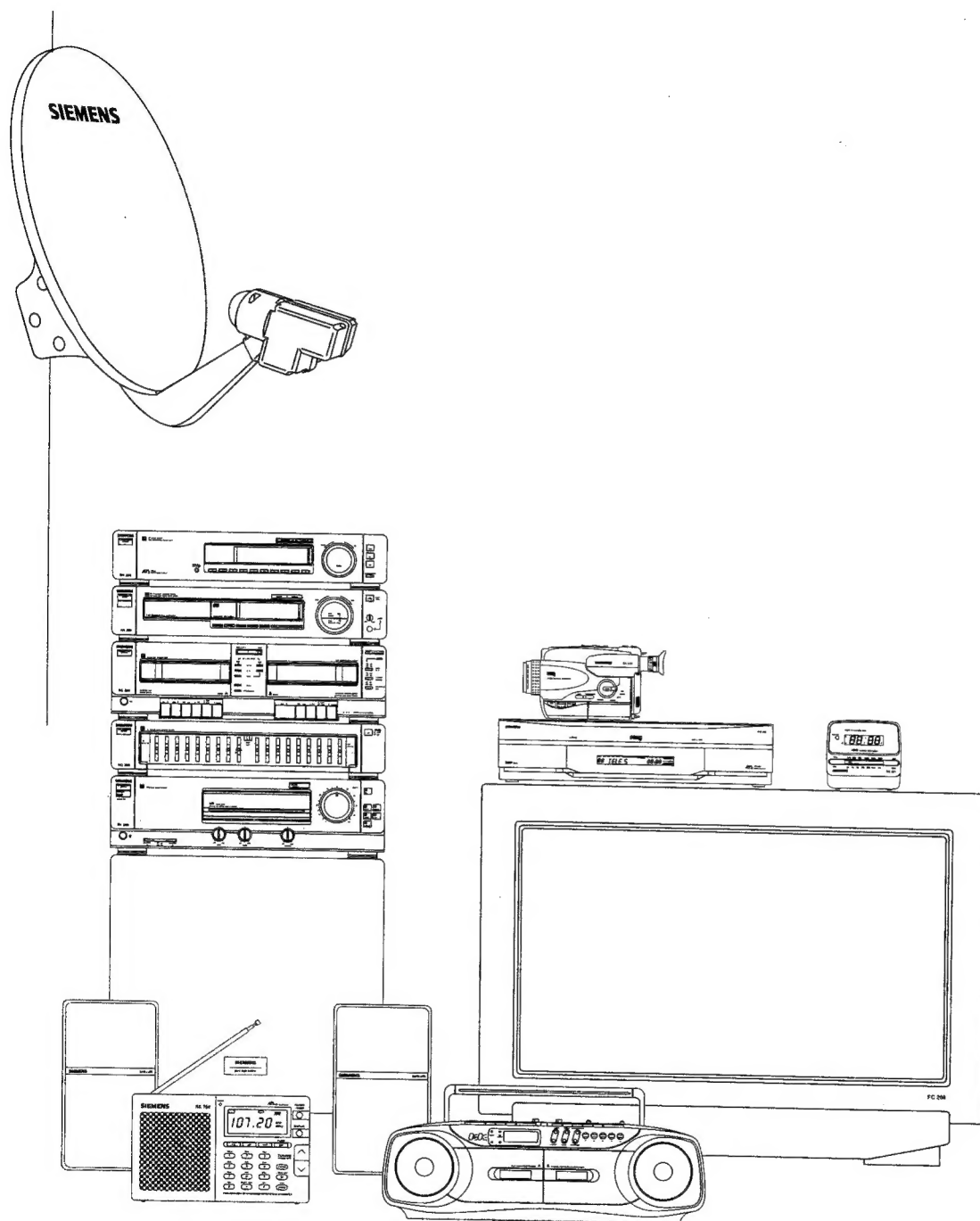
GB

Output power	2 watt
Batteries IEC	4 x 1.5V MONO (LR20/D/AM1) 3 x 1.5V MINI (LR6/AA/AM3)
External power supply	Standard 6V mains supply unit
Dimensions in cm (w x h x d)	296 x 192 x 68
Weight in kg	1.8

Cassette section

Suitable cassettes	C30 / C60 / C90
Tape speed	4.75 cm/sec.
Recording method	4-track stereo
Recording system	AC magnetic bias
Erase system	Magnetic system
Frequency response	125 Hz - 8000 Hz

SIEMENS



Das Programm